

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-20 (Canceled).

Claim 21 (New): A coil apparatus comprising:

a core;

a winding; and

a terminal,

wherein the core has terminal attachment portions at opposed both ends thereof, and has a winding portion in an intermediate portion thereof,

the winding is wound around the winding portion,

the terminal is a part to which an end of the winding is connected, formed of one metal sheet, and includes an attachment portion, an intermediate portion and a bottom portion,

one end of the attachment portion is fixed to the terminal attachment portion of the core,

one end of the intermediate portion is continuous with the other end of the attachment portion at a bent portion,

the bottom portion has one end which is continuous with the other end of the intermediate portion at a bent portion, faces the attachment portion, and has the other end as a free end, and

the intermediate portion has a hole in a plane thereof, both inner edges of the hole opposed to each other in at least one direction having an arc shape.

Claim 22 (New): The coil apparatus according to claim 21, wherein the hole is arranged to be biased in a direction of the attachment portion.

Claim 23 (New): The coil apparatus according to claim 21, wherein the terminal has an extended width portion in which a width is extended from the intermediate portion toward the bottom portion between the intermediate portion and the bottom portion.

Claim 24 (New): The coil apparatus according to claim 21, wherein the hole has a circular shape.

Claim 25 (New): The coil apparatus according to claim 21, wherein the hole has a short diameter and a long diameter, and a direction of the short diameter matches with a direction from the attachment portion to the bottom portion.

Claim 26 (New): The coil apparatus according to claim 21, wherein the hole has a short diameter and a long diameter, and a direction of the long diameter matches with a direction from the attachment portion to the bottom portion.

Claim 27 (New): The coil apparatus according to claim 25, wherein arc-shaped parts at both ends of the hole are continuous with each other through linear parts.

Claim 28 (New): The coil apparatus according to claim 26, wherein arc-shaped parts at both ends of the hole are continuous with each other through linear parts.

Claim 29 (New): The coil apparatus according to claim 25, wherein the hole has an elliptic shape.

Claim 30 (New): The coil apparatus according to claim 26, wherein the hole has an elliptic shape.

Claim 31 (New): The coil apparatus according to claim 21, further comprising an insulating sheath body,

wherein the insulating sheath body covers the core and a coil provided around the core,

the core includes a winding core portion constituted of the winding portion and a pair of flange portions formed at both ends of the winding core portion, and

a cross section of the winding core portion orthogonal to a winding axis direction has a shape which includes bulge portions on a pair of opposed surfaces in a square shape.

Claim 32 (New): The coil apparatus according to claim 31, wherein the bulge portion of the winding core portion is formed of a curved line in the cross section orthogonal to the coil winding axis direction.

Claim 33 (New): The coil apparatus according to claim 31, wherein at least one winding escape portion is formed in the winding core portion,

the winding escape portion is formed by being inwardly depressed apart from an arc line which is in contact with the bulge portion and connects the square angular portions on both sides of the bulge portion as seen in a lateral cross section of the winding core portion.

Claim 34 (New): The coil apparatus according to claim 32, wherein at least one winding escape portion is formed in the winding core portion,

the winding escape portion is formed by being inwardly depressed apart from an arc line which is in contact with the bulge portion and connects the square angular portions on both sides of the bulge portion as seen in a lateral cross section of the winding core portion.

Claim 35 (New): The coil apparatus according to claim 31, wherein the winding core portion has flat portions on both sides of each of the bulge portions, and

the flat portions are formed between the other pair of opposed surfaces in the square shape and the bulge portions.

Claim 36 (New): The coil apparatus according to claim 31, wherein a part between an outer peripheral surface of the winding core portion and a surface of the flange portion on the winding core portion side is subjected to R processing or taper machining.

Claim 37 (New): The coil apparatus according to claim 31, wherein a part between a surface on the winding core portion side and an outer peripheral surface on a radial outer side in the flange portion is subjected to R processing.

Claim 38 (New): The coil apparatus according to claim 21, further comprising an insulating covering body,

wherein the core includes a coil winding portion, the coil winding portion extending in a longitudinal direction,

the winding is wound around the coil winding portion to constitute a coil,

the insulating covering body is formed of a thermoplastic insulating resin and covers the core and the coil, and

the core and the coil are positioned at a substantially central part of the insulating covering body.

Claim 39 (New): The coil apparatus according to claim 38, wherein the insulating covering body is formed of a liquid crystal polymer.

Claim 40 (New): The coil apparatus according to claim 21, further comprising an insulating resin sheath body,

wherein the core is a rod-like body extending in one direction and has the winding portion in an intermediate portion thereof,

the winding is wound around the winding portion,

the insulating resin sheath body covers at least a part of the winding,

at least one of the bent portions of the terminal is provided outside the insulating resin sheath body, and

at least a part of a surface of the insulating resin sheath body is roughened.

Claim 41 (New): The coil apparatus according to claim 21, wherein the winding is wound around the winding portion to constitute a coil,

the coil includes at least a first coil portion and a second coil portion, and

a boundary end surface of the first coil portion on the second coil portion side is inclined in such a manner that its inner peripheral side is closer to the second coil portion than its outer peripheral side.

Claim 42 (New): The coil apparatus according to claim 41, wherein a boundary end surface of the second coil portion on the first coil portion side is inclined in such a manner that its outer peripheral side is closer to the first coil portion than its inner peripheral side.

Claim 43 (New): The coil apparatus according to claim 21, wherein the coil apparatus is an antenna, a choke coil, or an inductor.